

Taylor Winter

STATISTICAL ANALYST

☎ +64 22 171 1260 | ✉ taylor.winter00@gmail.com

Summary

I currently work providing statistical advice and conducting analytics for Stats NZ and Ngāi Tahu (a large South Island iwi). I have extensive experience working on a range of survey and administrative datasets, mainly using a large data warehouse of Government data called the Integrated Data Infrastructure (IDI). In the last two years I have also been learning and applying Bayesian techniques. I have worked on a range of projects from producing statistics at low levels using multi-level Bayesian models, and developing imputation methods for New Zealand's new poverty statistics.

Alongside my work, I also study a PhD part-time. In my academic work I conduct research using a range of longitudinal datasets and national surveys. This has led to a significant increase in my exposure to structural equation models and multi-level modelling, with a number of publications currently in review or preparation.

Employment

Te Runanga o Ngai Tahu

STATISTICIAN

2018 - Present

Statistics New Zealand

STATISTICAL ANALYST

2016 - Present

University of Otago

SENIOR RESEARCH ASSISTANT

2013 - 2016

Queensland Department of Natural Resources and Mines

PROJECT OFFICER

2013 - 2015

University of Otago

RESEARCH ASSISTANT

2012 - 2014

Education

Victoria University of Wellington

DOCTOR OF PHILOSOPHY

Wellington

Present

University of Otago

MASTER OF SCIENCE

Dunedin

2016

Awards and scholarships

2018 IPANZ Young Professional Of The Year (Top 3)

Institute of Public
Administration NZ

2018 Victoria Doctoral Scholarship (Differed)

Victoria University
of Wellington

2015 Otago Research Master's Scholarship

University of Otago

Publications

1. Riordan, B, T Winter, J Flett, and DSPJ and T. Conner (In Review). Does the Fear of Missing Out (FoMO) moderate the relationship between social networking use and affect? A daily diary study. *Computers in Human Behavior*.
2. Winter, T, T Conner, and P Jose (In Review). Identifying Profiles of Affective Change: An Ecological Momentary Assessment of Flourishers. *Emotion*.

3. Winter, T, B Riordan, and A Surace (2019). The relationship between hazardous alcohol use and discrimination among Māori in Aotearoa New Zealand. *Addiction*.
4. Surace, A, B Riordan, and T Winter (2019). Do New Zealand sexual minorities engage in more hazardous drinking than non-sexual minorities? *Drug and Alcohol Review*.
5. Pittar, N, T Winter, L Falland-Cheung, D Tong, and J Waddell (2018). Scalp simulation – A novel approach to site-specific biomechanical modeling of the skin. *Journal of the Mechanical Behavior of Biomedical Materials* **77**, 308–313.
6. Falland-Cheung, L, JN Waddell, MS Lazarjan, MC Jermy, T Winter, D Tong, and PA Brunton (2017). Use of agar/glycerol and agar/glycerol/water as a translucent brain simulant for ballistic testing. *Journal of the Mechanical Behavior of Biomedical Materials* **65**, 665–671.
7. Franz, EA, Y Fu, M Moore, T Winter, T Mayne, R Debnath, and C Stringer (2016). Fooling the brain by mirroring the hand: brain correlates of the perceptual capture of limb ownership. *Restorative neurology and neuroscience* **34**(5), 721–732.
8. Tong, D, T Winter, J Jin, A Bennett, and J Waddell (2015). Quantification of subconcussive impact forces to the head using a forensic model. *Journal of Clinical Neuroscience* **22**(4), 747–751.
9. Winter, TJ and EA Franz (2014). Implication of the anterior commissure in the allocation of attention to action. *Frontiers in Psychology* **5**.

Presentations and posters

Using overseas surveys to produce reliable models of sexual minorities

2019

NEW ZEALAND POPULATION CONFERENCE, WELLINGTON

Alcohol use disparities among gender and sexual minorities in New Zealand (Poster)

2019

COLLABORATIVE PERSPECTIVES ON ADDICTION, RHODE ISLAND

Iwi data tool using integrated data and R Shiny

2017

IWI DATA CONFERENCE, CHRISTCHURCH

Using data to support a collective impact model of Maori potential

2016

POPULATION ASSOCIATION OF NEW ZEALAND CONFERENCE, CHRISTCHURCH

The effect of motherhood on income

2016

NEW ZEALAND ASSOCIATION OF ECONOMISTS CONFERENCE, WELLINGTON

A machine learning approach to classifying life course outcomes

2016

LONGITUDINAL AND MULTIVARIATE ANALYSIS NETWORK (STATS NZ), WELLINGTON

Methodology for comparing incomes between parents and non-parents

2016

STATISTICAL METHODS SEMINAR (STATS NZ), WELLINGTON

Inter-hemispheric inhibition in the autistic brain

2014

NEUROETHICS SEMINAR, DUNEDIN

Skills

- Languages such as SQL, R, Python, SAS, SPSS Syntax, Bash
- Structural equation modelling and causal analysis
- Bayesian statistics, using *brms* in R (Stan backend)
- Machine learning techniques such as random forests and neural nets
- Strong background using big data, i.e. the Integrated Data Infrastructure (IDI) at Stats NZ
- Knowledge of Tikanga Māori

Referees

Available on request